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EXAMINER	
WENDELL, ANDREW	
ART UNIT	**PAPER NUMBER**
2643	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/814,909	HODDIE, J. PETER	
	Examiner	Art Unit	
	Andrew Wendell	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *30 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5-6, 9-11, 16, 19-22, 24, 29-31, and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Kotzin (US Pat Appl# 2004/0204076).

Regarding claim 1, Kotzin's subscriber device for enhancing interfaces thereto teaches a wireless communication interface 103 (Fig. 1) supporting communication across a wireless connection 109 and 111 (Fig. 1); and a controller 207 (Fig. 2) connected to the wireless interface 203 and 209 (Fig. 2) supporting a negotiation service and a communication service (Section 0019); wherein the negotiation service provides interface negotiation for using the wireless interface to negotiate with another device to select a communication interface for communication with the another device (Sections 0019-0021), and the communication service provides control and management of communication with the another device across a connection established using the negotiation service (Sections 0019-0021).

Regarding claim 2, Kotzin teaches wherein the wireless interface support Bluetooth (Section 0014).

Regarding claim 3, Kotzin teaches a second communication interface 209 (Fig. 2).

Regarding claim 5, Kotzin teaches wherein each of the wireless interface and the second communication interface support respective types of wireless communication WAN and LAN (Fig. 2 and Sections 0013-0014).

Regarding claim 6, Kotzin teaches a third communication interface 211 or 223 or 225 (Fig. 2) supporting a wired connection (Section 0013).

Regarding claim 9, Kotzin teaches wherein a first connection opened using the negotiation service and the wireless interface is kept open while a second connection opened using the communication service and the second communication interface is open (Section 0017).

Regarding claim 10, Kotzin teaches wherein the negotiation service provides interface negotiation automatically (Sections 0019-0021).

Regarding claim 11, Kotzin teaches wherein the negotiation service provides interface negotiation in response to a request by a user (Section 0029).

Regarding claim 13, Kotzin teaches wherein the negotiation service selects a communication interface using settings previously provided by a user (Section 0029).

Regarding claim 16, Kotzin teaches wherein the wireless interface supports an indirect connection to another device using a network (Section 0013 and 0014).

Regarding claim 19, Kotzin teaches searching for a second device using a default interface of a first device (Sections 0019-0021); establishing a negotiation connection between the first device and the second device using the default interface

(Sections 0019-0021); negotiating to select a communication interface using the negotiation connection (Sections 0019-0021); establishing a communication connection using the selected interface (Sections 0019-0021); communicating between the first device and the second device using the communication connection (Sections 0019-0021); and closing the communication connection 427 (Fig. 4); wherein the default interface is a wireless interface 203 or 209 (Fig. 2).

Regarding claim 20, Kotzin teaches further comprising searching for the second device using a secondary interface 209 (Fig. 2).

Regarding claim 21, Kotzin teaches wherein the negotiation connection is open while the communication connection is open (Section 0017).

Regarding claim 22, Kotzin teaches wherein negotiating to select a communication interface includes determining one or more available interfaces (Sections 0019-0021); determining one or more compatible interfaces from among the one or more available interfaces (Sections 0019-0021); and selecting one of the one or more compatible interfaces as the communication interface using one or more communication criteria (Sections 0019-0021).

Regarding claim 24, Kotzin teaches wherein negotiating to select a communication interface also includes selecting a communication mode (Sections 0019-0021).

Regarding claim 29, Kotzin teaches means for searching for a second device using a default interface of a first device (Sections 0019-0021); means for establishing a negotiation connection between the first device and the second device using the default

interface (Sections 0019-0021); means for negotiating to select a communication interface using the negotiation connection (Sections 0019-0021); means for establishing a communication connection using the selected interface (Sections 0019-0021); means for communicating between the first device and the second device using the communication connection (Sections 0019-0021); and means for closing the communication connection 427 (Fig. 4); wherein the default interface is a wireless interface 203 or 209 (Fig. 2).

Regarding claim 30, Kotzin teaches means for determining one or more available interfaces (Sections 0019-0021); means for determining one or more compatible interfaces from among the one or more available interfaces (Sections 0019-0021); and means for selecting one of the one or more compatible interfaces as the communication interface using one or more communication criteria (Sections 0019-0021).

Regarding claim 31, Kotzin teaches means for selecting a communication mode (Sections 0019-0021).

Regarding claim 33, Kotzin teaches search for a second device using a default interface of a first device (Sections 0019-0021); establish a negotiation connection between the first device and the second device using the default interface (Sections 0019-0021); negotiate to select a communication interface using the negotiation connection (Sections 0019-0021); establish a communication connection using the selected interface (Sections 0019-0021); communicate between the first device and the second device using the communication connection (Sections 0019-0021);; and close

the communication connection 427 (Fig. 4); wherein the default interface is a wireless interface 203 or 209 (Fig. 2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Grannan (US Pat Appl# 2004/0203387).

Regarding claim 4, Kotzin's subscriber device for enhancing interfaces thereto teaches the limitations in claim 3. Kotzin fails to teach about an interface that supports Wi-Fi.

Grannan system for controlling appliances teaches wherein a second communication interface supports Wi-Fi (Section 0007).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate an interface that supports Wi-Fi as taught by Grannan into Kotzin's subscriber device for enhancing interfaces thereto in order to improve communications (Section 0003).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Janik (US Pat Appl# 2004/0253945).

Regarding claim 7, Kotzin's subscriber device for enhancing interfaces thereto teaches the limitations in claim 3. Kotzin shows in figure 2 a WAN and LAN interface

and it is known that a LAN has a higher data rate than a WAN. However, Kotzin fails to clearly teach about a second communication interface providing a higher data rate than the wireless interface.

Janik system for interactivity for thin client devices teaches wherein the second communication interface (LAN) provides a higher data rate than the wireless interface (WAN) (Section 0017).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a second communication interface providing a higher data rate than the wireless interface as taught by Janik into Kotzin's subscriber device for enhancing interfaces thereto in order to optimize set up preferences for varying types of services delivered to devices (Section 0027).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Moon et al. (US Pat Appl# 2005/0076054).

Regarding claim 8, Kotzin's subscriber device for enhancing interfaces thereto teaches the limitations in claim 3. Kotzin fails to teach a second interface using more power than a wireless interface.

Moon et al. arrangement for autonomous mobile network nodes to organize a wireless mobile network teaches wherein a second communication interface uses more power than a wireless interface (Section 0037).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a second

interface using more power than a wireless interface as taught by Moon et al. into Kotzin's subscriber device for enhancing interfaces thereto in order to provide means to switch between communication modes (Sections 0015 and 0016).

7. Claims 12, 14-15, 17-18, 25, 27-28, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Shah et al. (US Pat Appl# 2004/0023652).

Regarding claim 10, Kotzin's subscriber device for enhancing interfaces thereto teaches the limitations in claim 10. Kotzin fails to teach a negotiation service selects a communication interface without user input.

Shah et al. wireless personal communicator teaches wherein the negotiation service selects a communication interface without user input (Sections 0017-0029).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a negotiation service selects a communication interface without user input as taught by Shah et al. into Kotzin's subscriber device for enhancing interfaces thereto in order to switch from one type of network to another with out loss of connectivity (Section 0016).

Regarding claim 14, the combination including Shah et al. teaches wherein the wireless interface supports a direct connection to another device (Section 0023).

Regarding claim 15, the combination including Shah et al. teaches wherein the direct connection is a newly established ad hoc network established with another device (Section 0023).

Regarding claim 17, Kotzin teaches wherein the wireless interface supports receiving a signal from an IEEE802.11b source (Section 0014), and the negotiation service uses the signal to open communication (Sections 0019-0021). Kotzin fails to clearly teach a beacon signal.

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a beacon signal as taught by Shah et al. into Kotzin's subscriber device for enhancing interfaces thereto in order to switch from one type of network to another with out loss of connectivity (Section 0016).

Regarding claim 18, Kotzin teaches wherein the signal indicates another device as a target device and a target interface, and another device is different from the IEEE802.11b source (Sections 0014 and 0019-0021). Kotzin fails to clearly teach a beacon signal.

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a beacon signal as taught by Shah et al. into Kotzin's subscriber device for enhancing interfaces thereto in order to switch from one type of network to another with out loss of connectivity (Section 0016).

Regarding claim 25, the combination including Shah et al. teaches wherein: the communication mode indicates whether to use a direct connection between the first device and the second device or an indirect connection between the first device and the second device for the communication connection (Sections 0017-0029).

Regarding claim 27, Kotzin teaches receiving a signal from an IEEE802.11b source at the device (Sections 0014 and 0019-0021); and determining a target device and a target interface using the signal (Sections 0019-0021); wherein the target device is the second device and the target interface is the default interface (Sections 0019-0021). Kotzin fails to clearly teach a beacon signal (IEEE802.11b).

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a beacon signal as taught by Shah et al. into Kotzin's subscriber device for enhancing interfaces thereto in order to switch from one type of network to another with out loss of connectivity (Section 0016).

Regarding claim 28, the combination including Kotzin teaches wherein the target device is different from the beacon source (Sections 0014 and 0019-0021).

Regarding claim 32, Kotzin teaches means for receiving a signal from an IEEE802.11b source at the device (Sections 0014 and 0019-0021); and means for determining a target device and a target interface using the signal (Sections 0019-0021); wherein the target device is the second device and the target interface is the

default interface (Sections 0019-0021). Kotzin fails to clearly teach a beacon signal (IEEE802.11b).

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a beacon signal as taught by Shah et al. into Kotzin's subscriber device for enhancing interfaces thereto in order to switch from one type of network to another with out loss of connectivity (Section 0016).

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Carlton et al. (US Pat Appl# 2005/0141450) and in further view of Moon et al. (US Pat Appl# 2005/0076054).

Regarding claim 23, Kotzin's subscriber method for enhancing interfaces thereto teaches the limitations in claim 22. Kotzin teaches a communication criteria (Sections 0019-0021), but it is unclear what parameters have to be met. Kotzin fails to teach clearly about a communication criteria that includes data rate and power use.

Charlton et al. method for integrating resource allocation between wireless communication systems teaches a communication criteria that includes data rate (Section 0027). Charlton et al. and Kotzin fail to teach a communication criteria that includes power use.

Moon et al. arrangement for autonomous mobile network nodes to organize a wireless mobile network teaches a communication criteria that includes power use (Section 0037).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a communication criteria that includes data rate as taught by Charlton et al. into a communication criteria that includes power use. as taught by Moon et al. into Kotzin's subscriber device for enhancing interfaces thereto in order to provide means to switch between communication modes (Sections 0015 and 0016).

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Ahonen (US Pat Appl# 2005/0190920).

Regarding claim 26, Kotzin's subscriber method for enhancing interfaces thereto teaches the limitations in claim 24. Kotzin fails to teach an encryption set up in a communication mode.

Ahonen's digital wireless data communication network for arranging end to end encryption teaches wherein the communication mode indicates a type of encryption to use for the communication connection (Sections 0001-0008 and 0028-0030).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate an encryption set up in a communication mode as taught by Ahonen into Kotzin's subscriber device for enhancing interfaces thereto in order to increase security (Section 0021).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 571-272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Wendell
Patent Examiner

Date: 1/13/06

DUC NGUYEN
PRIMARY EXAMINER

ASW